RTU7B – Battery Powered RTU

Unit Description

The RTU7B is designed for remote data acquisition and control in places without power supply. It was optimized for extremally low power consumption, which allows long life battery operation. Typical battery life cycle is more than one year for usual communication period (3 x daily for 2 minutes). Besides battery powering it is possible also external powering 5 ÷ 12 V DC.

RTU is installed in robust aluminum wall-mount housing with IP68 and signals are connected to RTU through the bushings. Front panel is equipped with magnetic contact for communication wake-up without necessity of opening the housing. The communication of unit can be evoked by change of value, limit, alarm, full buffer or periodically.

Typical Applications

- in-field data acquisition and control in utilities, ex. water management.

Basic Features of Unit

- 4 × digital inputs, pulse counters, period measuring,
- 4 × OC digital outputs,
- 4 x analog inputs (2 x 10 V, 2 x 20 mA),
- battery powering, optionally external powering,
- communication interfaces – GSM/GPRS (optionally LTE), USB, RS-485, M-BUS,
- supported communication protocols – DNP3, MODBUS TCP,
- optionally user programming by logical and relational expressions,
- RTC synchronized from SCADA,
- other values: battery status, temperature, GSM signal strength, logs,
- wall or panel mounting.

RTU7B

Technical Specification

Battery powering	2 × 3,6 V Li-SOCl2 (optionally external battery box for operation extension)
External power supply (optionally)	5 ÷ 12 V DC
Digital inputs	4 × active or passive inputs (signaling voltage 12 V DC), pulse counters 20 ms
Digital outputs	4 × 30 V / 50 mA (open collector)
Voltage inputs	2 × 0 ÷ 10 V (overloadability 12,5 V), configurable measuring period
Current inputs	2 × 0 ÷ 20 mA (overloadability 25 mA), configurable measuring period
External sensors powering	2 × output (12 or 24 V / 25mA), active only during value measurement
Communication interfaces	GSM/GPRS (optionally LTE)
	USB for parameterization
	RS-485 (optional)
	M-BUS – master, maximally two Slave devices
Temperature sensor	Measured range -25 °C ÷ 70 °C, accuracy ±2 °C
Operating temperature	-25 °C ÷ 70 °C
Storage temperature	-30 °C ÷ 75 °C
Ambient relative humidity	5 % ÷ 95 % non-condensing
Dimensions	200 × 160 × 100 mm (W × H × D) without bushings
Ingress protection	IP68